



US 20030030628A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0030628 A1**
Sato et al. (43) **Pub. Date: Feb. 13, 2003**(54) **INPUT APPARATUS FOR PERFORMING
INPUT OPERATION CORRESPONDING TO
INDICATION MARKS AND COORDINATE
INPUT OPERATION ON THE SAME
OPERATIONAL PLANE**(30) **Foreign Application Priority Data**

Aug. 10, 2001 (JP) 2001-243277

Publication Classification(51) **Int. Cl.⁷** **G09G 5/00**(52) **U.S. Cl.** **345/173**(75) Inventors: **Tadamitsu Sato**, Fukushima-ken (JP);
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Chicago, IL 60610 (US)(73) Assignee: **Alps Electric Co., Ltd.**(21) Appl. No.: **10/214,910**(22) Filed: **Aug. 8, 2002**(57) **ABSTRACT**

An input apparatus includes a flat input device of a pressure-sensitive type or a capacitive type, and an indicator sheet on which indication marks are formed is fixed on the surface of the flat input device. A tactile-feel-generating unit is provided behind the flat input device. The tactile-feel-generating unit includes dome-shaped inversion plates which are disposed at positions corresponding to the indication marks. When one of the indication marks is pressed setting an input mode, an operation signal is generated in accordance with an item represented by the indication mark, and a tactile feel is generated by a reaction force of the corresponding inversion plate. When an indication mark is touched, while in an input mode, the control unit recognizes the resulting signal to be a coordinate data signal.

